



10/709311

COFE

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 7,012,763 B2
Issue Date : Mar. 14, 2006
Inventor : Yuan-Hsun WU
Docket No. : NTCP0034USA

Certificate
APR 04 2006
of Correction

Title: APERTURE PLATE FOR LITHOGRAPHY SYSTEMS

To: Commissioner for Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Subject: Request for Certificate of Correction of Office Mistake

The name of the assignee listed on the front page of the Patent is incorrect (Attachment 1). Documents on record indicate this as an Office mistake of consequence.

The applicant hereby requests that a Certificate of Correction be issued under 37 CFR 1.322 to correct the name of the assignee from **Nanya Technolog Corp.** to **Nanya Technology Corp.** which was correctly listed on the Fee Transmittal submitted on 01/03/2006 (Attachment 2) and The Notice of Recordation dated 04/28/2004 (Attachment 3).

APR 05 2006

Respectfully submitted,

Winston Hsu

Date: 03.28.2006

Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

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(Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan).

APR 05 2006



(12) **United States Patent**
Wu

(10) **Patent No.:** **US 7,012,763 B2**
(45) **Date of Patent:** **Mar. 14, 2006**

(54) **APERTURE PLATE FOR LITHOGRAPHY SYSTEMS**

(75) **Inventor:** **Yuan-Hsun Wu, Tao-Yuan Hsien (TW)**

(73) **Assignee:** **Nanya Technolog Corp., Tao-Yuan Hsien (TW)** *technology*

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1 day.

(21) **Appl. No.:** **10/709,311**

(22) **Filed:** **Apr. 28, 2004**

(65) **Prior Publication Data**
US 2005/0243440 A1 Nov. 3, 2005

(51) **Int. Cl.**
G02B 27/00 (2006.01)
G03B 27/72 (2006.01)

(52) **U.S. Cl.** **359/738; 355/67**

(58) **Field of Classification Search** **359/738-740; 355/53, 67**

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,842,224 B1 * 1/2005 Mori 355/53

* cited by examiner

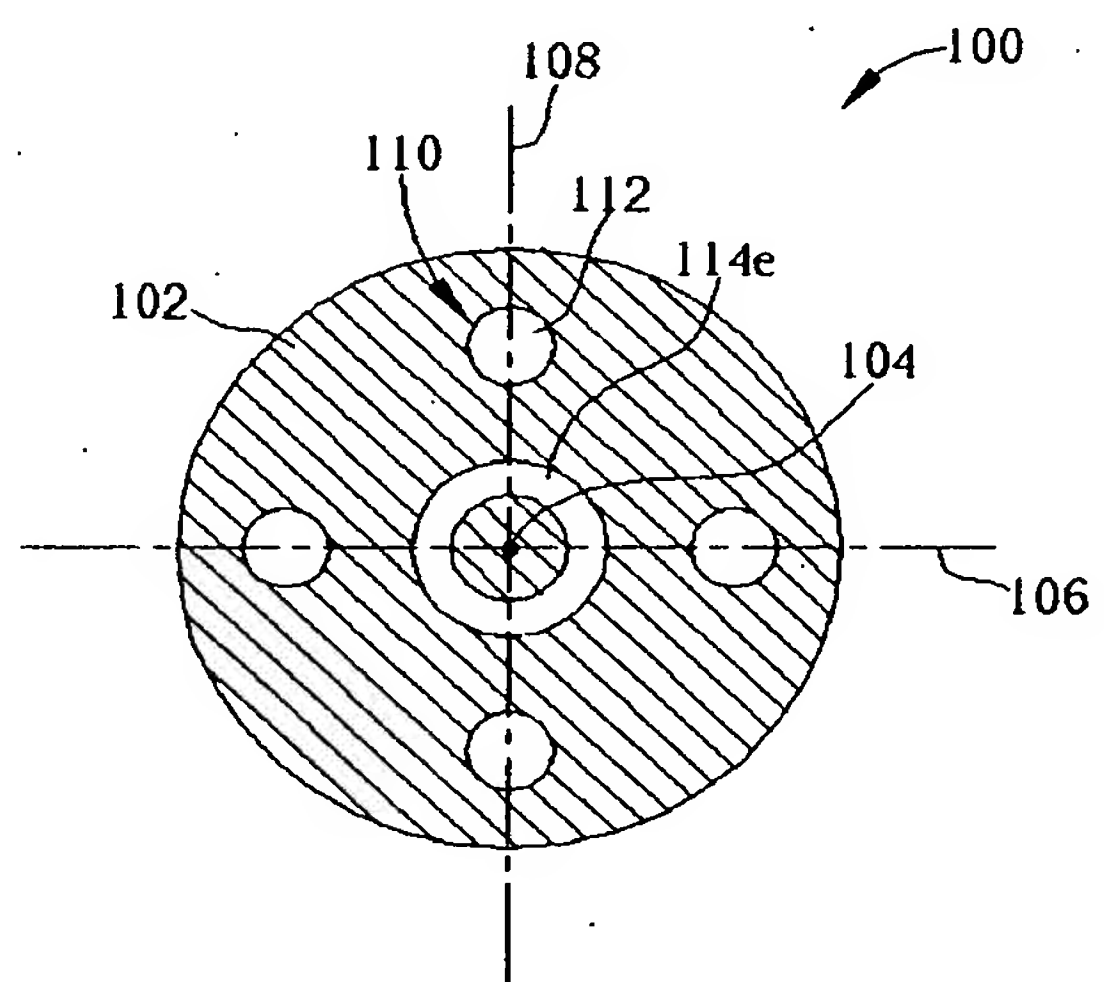
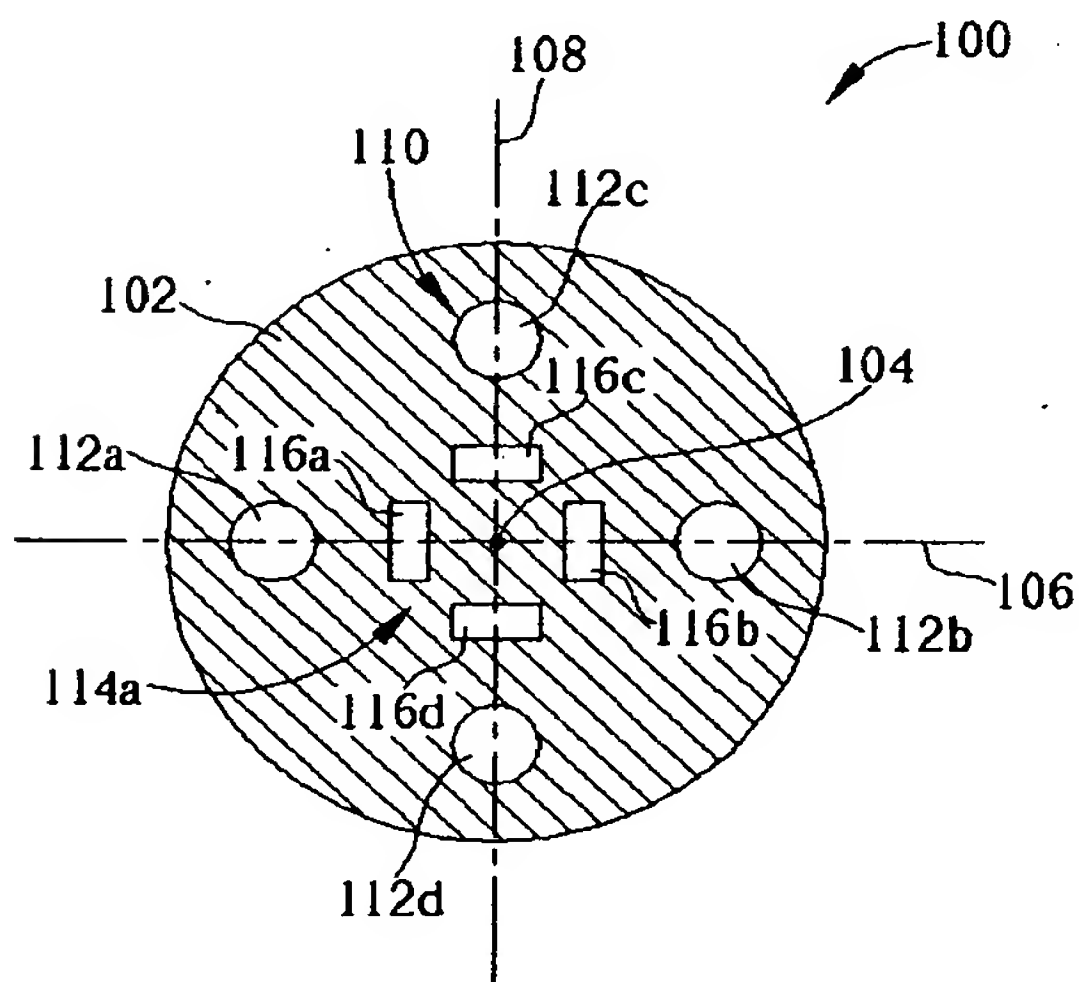
Primary Examiner—Scott J. Sugarman

(74) *Attorney, Agent, or Firm*—Winston Hsu

(57) **ABSTRACT**

An aperture plate for lithography systems capable of improving NILS. The aperture plate includes a light-intercepting region and a light-transmitting region. The light-intercepting region has a reference center point. A horizontal reference line and a vertical reference line are defined on the light-intercepting region and intersect the reference center point. The light-transmitting region includes four pole apertures defining a central area. Two of the pole apertures are positioned on the horizontal reference line, and the other pole apertures are positioned on the vertical reference line. The light-transmitting region further includes at least a symmetric pattern aperture positioned in the central area, wherein the symmetric pattern aperture has a symmetric center overlapping the reference center point.

11 Claims, 9 Drawing Sheets





Attachment >

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
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P.O. Box 1450
Alexandria, Virginia 22313-1450
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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027765 7590 12/09/2005

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Zoe Huang	(Depositor's name)
<i>Zoe Huang</i>	(Signature)
2006/1/3	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,311	04/28/2004	Yuan-Hsun WU	NTCP0034USA	3310

TITLE OF INVENTION: APERTURE PLATE FOR LITHOGRAPHY SYSTEMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	03/09/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
SUGARMAN, SCOTT J	2873	359-738000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1. Winston Hsu

2. _____

3. _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

NANYA TECHNOLOGY CORP.

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Hwa-Ya Technology Park 669, Fuhsing 3 Rd., Kueishan, Tao-Yuan
Hsien. Taiwan. R.O.C.

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☒ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 50-3105 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

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Authorized Signature

Winston Hsu

Date 2006/01/03

Typed or printed name

Winston Hsu

Registration No. 41,526

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Attachment 7



947660

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Patent and Trademark Office
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Washington, D.C. 20231



APRIL 28, 2004

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P.O. BOX 506
MERRIFIELD, VA 22116

Zoe Tseng

2004/5/17

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NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/28/2004

REEL/FRAME: 014537/0445
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

WU, YUAN-HSUN

DOC DATE: 04/20/2004

ASSIGNEE:

NANYA TECHNOLOGY CORP.

HWA-YA TECHNOLOGY PARK 669,

FUHSING 3 RD.,

KUEISHAN

TAO-YUAN HSIEN, TAIWAN

SERIAL NUMBER: 10709311

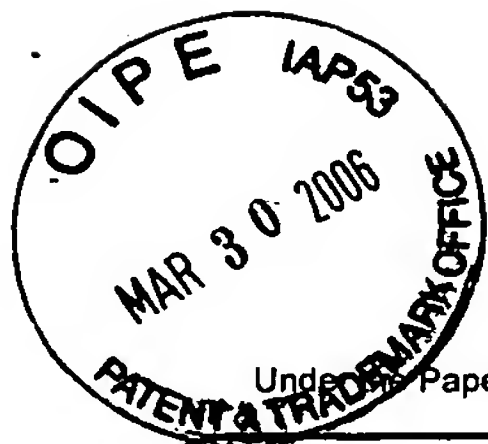
PATENT NUMBER:

FILING DATE:

ISSUE DATE:

014537/0445 PAGE 2

SHAREILL COLES, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS



ITW

PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031
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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/709,311	
	Filing Date	04/28/2004	
	First Named Inventor	Yuan-Hsun WU	
	Art Unit	2873	
	Examiner Name	SUGARMAN, SCOTT J	
Total Number of Pages in This Submission	8	Attorney Docket Number	NTCP0034USA

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	1. Request for COC
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	2. Copy of the Front Page of Patent
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Landscape Table on CD	3. Copy of Fee Transmittal submitted on 01/03/2006
<input type="checkbox"/> Reply to Missing Parts/Incomplete Application		4. Copies of the Notice of Recordation dated 04/28/2004
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53		
Remarks Request for Certificate of Correction of Office Mistake		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	North America Intellectual Property Corporation		
Signature	<i>Winston Hsu</i>		
Printed name	Winston Hsu		
Date	3/28/2006	Reg. No.	41,526

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Typed or printed name	Stephanie Lai	Date	3/28/2006

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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)**0.00****Complete if Known**

Application Number	10/709,311
Filing Date	04/28/2004
First Named Inventor	Yuan-Hsun WU
Examiner Name	SUGARMAN, SCOTT J
Art Unit	2873
Attorney Docket No.	NTCP0034USA

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☒ Deposit Account Deposit Account Number: **50-3105** Deposit Account Name: North America Intellectual Property Corporation

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
		Small Entity Fee (\$)		Small Entity Fee (\$)		Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
- 20 or HP =	x	=				

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 3 or HP =	x	=	

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): _____

SUBMITTED BY

Signature	<i>Winston Hsu</i>	Registration No. (Attorney/Agent)	41,526	Telephone	3027291562
Name (Print/Type)	Winston Hsu	Date	3/28/2006		

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